# The University of Wisconsin- Milwaukee
## Geography 247 - Quantitative Analysis in Geography
## Lab4 - Fall 2007

**From the census website, download the data table "GCT-PH1-R. Population, Housing Units, Area, and Density (geographies ranked by total population): 2000" from the data set "Census 2000 Summary File 1 (SF 1) 100-Percent Data" for all the counties of Wisconsin and answer the following questions. Refer the slides "Downloading Census Data" as discussed in week 6.**

**Question1: Show your work in the worksheet "Descriptive"**

- **Use the "Descriptive Statistics" tool to find out the descriptive statistics for the population data.**
- **Based on the obtained descriptive statistics, find out the name of counties having maximum and minimum population.**

**Question 2: Show your work in the worksheet "Standard".**

- **Calculate the standard deviation of the "Population of various counties". Follow the steps we learned in the class (use the formula for sample while calculating standard deviation). Properly label your columns mentioning what is represented in the column.**
- **Also find out the standard deviation using the function "STDEV".**
- **Do you find any difference between these two calculated values?**

**Question 3: Show your work in the worksheet "Z scores"**

- **Calculate the Z scores of the "Housing units of various counties". To do so at first you need to calculate the average and standard deviation (use the function "STDEV"). Then use the equation to compute Z scores.**
- **In another column use the function "Standardize" to find out Z scores.**
- **Find out the mean and standard deviation of the Z scores obtained through "Standardize" function.**